

Pinkerton Forest and Bush's Paddock Spring Flora Survey

Project: 07-65

Prepared for:

Western Water and Melton Shire Council



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Bioregion (for EA record keeping purposes): Victorian Volcanic Plain

Owner	Ecology Australia
Author	G. W. Carr and L. A. Ashby
Location	J:\CURRENT PROJECTS\Pinkerton Spring Surveys 07-65\Pinkerton Forest and Bush's Paddock Spring Flora Survey_Draft Report.doc
Distribution	

Document History			
Status	Changes	By	Date
Draft 1.0	First Draft	G. W. Carr and L. A. Ashby	10/4/08
Draft 2.0		G. W. Carr and L. A. Ashby	31/7/08
Draft 2.0		G. W. Carr and L. A. Ashby	1/8/08

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Summary

Pinkerton Forest and Bush's Paddock, on the western side of Mt Cottrell, was surveyed for flora in spring 2006 on behalf of Melton Shire Council and Western Water. A report (.....) was prepared, documenting the flora values and identifying management issues. Further survey was recommended to take place in 2007 because of the extreme dryness of the 2006 season when many plants failed to flower. Accordingly the sites were revisited on 13 November 2007 to detect plant species not previously seen by us, and to collect additional quadrat data as appropriate.

A considerable number of additional indigenous (including significant species) and exotic species were recorded in both areas: 32 species (16 indigenous and 16 exotic) in Pinkerton Forest, and 17 species (9 indigenous and 8 exotic) in Bush's Paddock.

The additional information is given in this report.

1 Introduction

Ecology Australia was commissioned by Melton Shire Council and Western Water to conduct a spring flora survey of Bush's Paddock and Pinkerton Forest, Mt Cottrell. A flora, fauna and Net Gain overview report has already been prepared for these properties, but due to the season (summer) and drought conditions prevailing during the previous assessment, not all flora species were likely to have been recorded. Surveying in spring for flora species not previously recorded was considered necessary to provide a comprehensive picture of the flora values of both properties.

The scope of works included:

- collection of data from additional quadrats if particularly interesting variation in the flora were observed;
- compilation of a more comprehensive floristic inventory incorporating any additional species (indigenous and exotic);
- provision of more detailed information on serious weed species (distribution and population size);
- significance of any additional species recorded, particularly whether they are listed under legislation;
- compilation of any additional notes of interest; and
- the preparation of a report of the findings in a form that supplements the original report.

This report outlines the results of the spring survey and covers the tasks outlined above. For detailed information on the study area, description of Ecological Vegetation Classes and habitat condition assessment, fauna values and management issues see the original overview report (Carr et al. 2007).

2 Methods

2.1 Spring flora survey

The properties were visited on the 13 November 2007 and traversed on foot to record plant species. Two quadrats were sampled in Pinkerton Forest to collect detailed data on the floristic composition and structure of vegetation types present in areas that were not intensively surveyed for the overview report. The quadrats sampling method involved recording all indigenous and exotic vascular plant species in c. 700 m² (typically 30 m diameter circles) and assigning a visually assessed cover/abundance value to each species from the Braun-Blanquet cover/abundance scale (Gullan 1978):

- + cover < 5%, few individuals
- 1 cover < 5%, any number of individuals
- 2 cover 5-20%, any number of individuals
- 3 cover 20-50%, any number of individuals
- 4 cover 50-75%, any number of individuals
- 5 cover 75-100%, any number of individuals

Floristic data collected within quadrats (Appendix 7), and as incidental records (Appendices 2 and 3), were entered into the Flora Information System (FIS) database, and will be made available to the administrators of this database at DSE. The FIS was also used to generate an inventory of plant species recorded during the survey.

Records of grass species at Pinkerton Forest and Bush's Paddock were also provided by Valentino Stajsic (National Herbarium of Victoria, pers. comm.).

2.1.1 Limitations

As for all flora surveys, the seasonality of some plant species may be a limitation. Some species may have been overlooked because they were inconspicuous when the survey was conducted, or have been identified to genus level only due to the absence of fertile material.

These limitations are unlikely to alter the findings regarding overall quality and conservation significance of the vegetation.

2.1.2 Terminology and taxonomy

An asterisk (*) preceding plant names signifies non-indigenous taxa, which are those that would not naturally occur in the particular habitat. A hash sign (#) denotes native plant species that are not necessarily indigenous in the relevant vegetation types or region.

Plant taxonomy and the use of common names follow Walsh and Stajsic (2007) and DSE (2004) respectively. Several informal names (Ecology Australia, unpub.) are also used for taxa that are not currently recognised in the literature, e.g. *Enchylaena tomentosa* (prostrate form).

2.1.3 Determination of significance

Categories of significance used in this report and how they are determined are explained in Appendix 1.

3 Results

3.1 Plant taxa

A total of 49 additional plant species was recorded at both sites: 17 species (8 exotic) were recorded at Bush's Paddock and 32 (16 exotic) were recorded at Pinkerton Forest (Appendices 2 and 3).

3.2 Significant species

One species, Clover Glycine (*Glycine latrobeana*), listed under both the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and Victorian *Flora and Fauna Guarantee Act 1988* was recorded at Pinkerton Forest in 2006 in the previous study. With availability of better-quality material this has been redetermined as *Glycine tabscina* (Variable Glycine) which is not a Victorian rare or threatened species. A further species of State conservation significance, *Alternanthera* sp. 1 (Plains Joyweed) (listed by DSE 2005 as Insufficiently known) was also recorded (see Table 1) (Figure 2).

3.3 Weed species

Several additional weed species were recorded in Pinkerton Forest and Bush's Paddock. Only one of these, Apple of Sodom (**Solanum linnaeanum*) has management implications. This species (previously recorded by Doug Froud) is a Regionally Controlled weed species listed under the *Catchment and Land Protection Act 1994*. Populations are very small.

Table 1 Threatened plant taxa recorded in the Data Review Area, indicating their conservation status and whether recorded or potentially occurring at Bush's Paddock or Pinkerton Forest. For additional information those species recorded at Eynesbury have also been indicated. Additional sites where species were recorded during the spring survey are marked with †. Additional species recorded during the spring survey that were not previously recorded at either site in 2006 are highlighted in bold.

Scientific Name	Common Name	Conservation Status				Recorded or Potentially occurring at:		Recorded at:
		EPBC status	FFG status	VROT status	Regional status	Bush's Paddock	Pinkerton Forest	Eynesbury
<i>Acacia verniciflua</i> (Bacchus Marsh variant)	Bacchus Marsh Varnish Wattle			vulnerable	endangered			✓
<i>Allocasuarina luehmannii</i>	Buloke		Listed		endangered			✓
<i>Alternanthera sp. 1 (plains)</i>	Plains Joyweed			insufficiently known	endangered		†	✓
<i>Amphibromus fluitans</i>	River Swamp Wallaby-grass	Vulnerable			endangered			✓
<i>Amyema linophylla</i> subsp. <i>orientale</i>	Buloke Mistletoe			vulnerable	endangered			✓
<i>Austrostipa exilis</i>	Heath Spear-grass			rare	?endangered			✓
<i>Austrostipa hemipogon</i>	Half-bearded Spear-grass			rare	?	✓	✓	✓
<i>Convolvulus angustissimus</i> subsp. <i>omnigracilis</i>	Slender Bindweed			insufficiently known	insufficiently known	✓	†	
<i>Cullen parvum</i>	Small Scurf-pea	De-listed	Listed	endangered	endangered			✓
<i>Desmodium varians</i>	Slender Tick-trefoil			insufficiently known	endangered	Potential		✓
<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	Arching Flax-lily			vulnerable	endangered	✓	✓	✓
<i>Diuris</i> sp. aff. <i>chryseopsis</i> (Basalt Plains)	Small Golden Moths	Endangered	Listed	vulnerable	endangered	Potential		
<i>Eleocharis macbarronii</i>	Grey Spike-sedge			insufficiently known	endangered			✓
<i>Eucalyptus</i> aff. <i>baueriana</i>	Werribee Blue Box			endangered	endangered		✓	✓

Scientific Name	Common Name	Conservation Status				Recorded or Potentially occurring at:		Recorded at:
		EPBC status	FFG status	VROT status	Regional status	Bush's Paddock	Pinkerton Forest	Eynesbury
(Werribee River catchment)								
<i>Glossostigma drummondii</i>	Desert Mud-mat			insufficiently known	endangered			✓
<i>Gratiola pumilio</i>	Dwarf Brooklime			rare	endangered			✓
<i>Nicotiana suaveolens</i>	Austral Tobacco			rare	endangered			✓
<i>Poa labillardieri</i> var. (Volcanic Plains)	Basalt Tussock-grass			insufficiently known	insufficiently known	Potential		✓
<i>Rhagodia parabolica</i>	Fragrant Saltbush			rare	rare	✓	✓	✓
<i>Sclerolaena muricata</i> var. <i>muricata</i>	Black Roly-poly			insufficiently known	insufficiently known	Potential	Potential	

Figure 1 Location of quadrats and significant flora species recorded at Pinkerton Forest and Bush's Paddock in November 2006 and 2007

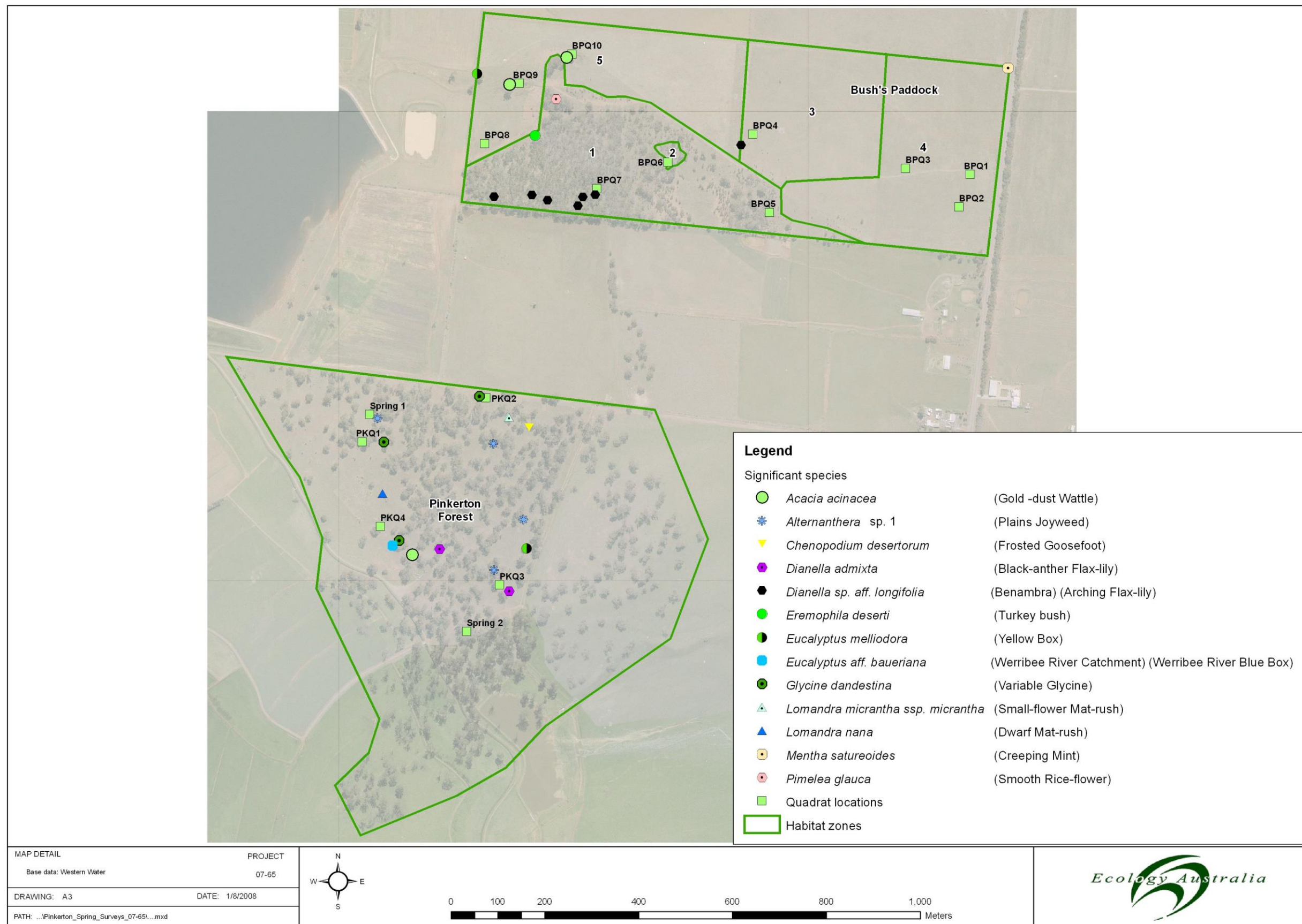
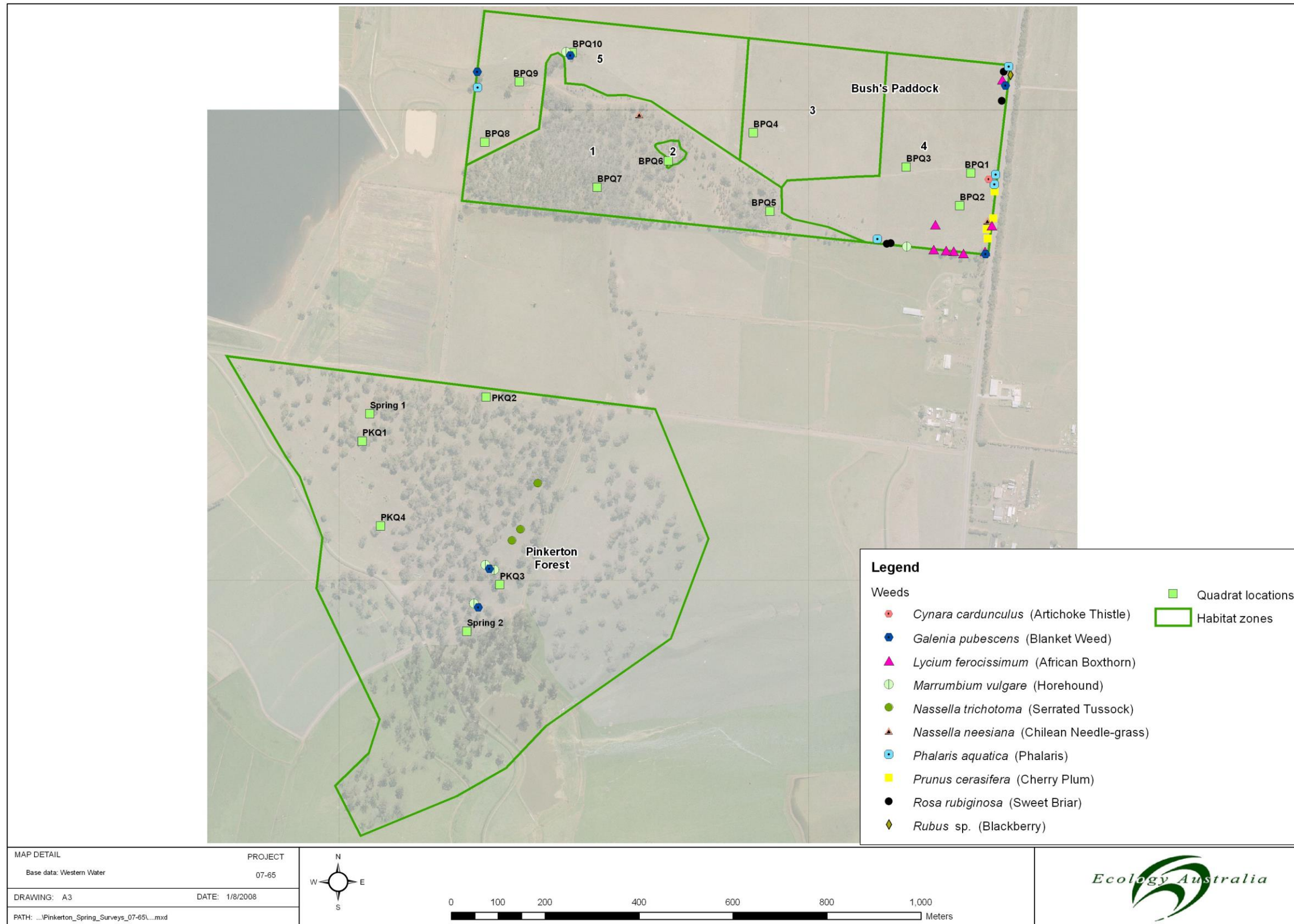


Figure 2 Location of selected weed species recorded at Pinkerton Forest and Bush's Paddock in November 2006 and 2007



4 Discussion

The results of this supplementary botanical survey demonstrate that a significant proportion of the indigenous and exotic flora was missed in the 2006 survey because of severely dry seasonal conditions. A total of 32 additional species was recorded for Pinkerton Forest, while 17 additional species were recorded at Bush's Paddock (see Section 3.1; Appendices 2, 3 and 5; Figure 1).

Additional plant species recorded include one significant species in Pinkerton, *Alternanthera* sp. 1 (Plains Joyweed) (k-insufficiently known) as well as additional populations of the Nationally Vulnerable *Dianella* sp. aff. *longifolia* (Arching Flax-lily) in Bush's Paddock. The previously recorded *Glycine latrobeana* (Clover Glycine) (Nationally Vulnerable) recorded in 2006 by us at Pinkerton Forest, was redetermined as *G. tabascina* (Variable Glycine) because better-quality material was available.

The significance of the flora of the study area was established in the 2006 study but these results from the 2007 survey confirm, and somewhat elevate, the significance. One of the most remarkable aspects of the flora of both areas is the number of *Austrostipa* species (Spear-grasses) recorded: no less than 14 species or 35% of the Victorian *Austrostipa* flora (see Walsh and Stajsic 2007) have been recorded.

One additional weed species of management concern Apple of Sodom (**Solanum linnaeanum*) was recorded in Bush's Paddock; only a few plants were evident.

5 Recommendations

6 References

- Carr, G. W., Ashby, L., Conole, L. E. and Renowden, C. (2007). Pinkerton Forest and Bush's Paddock: flora and fauna. Unpublished report prepared for Western Water and Melton Shire Council. (Ecology Australia Pty Ltd: Fairfield.)
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- Gullan, P.K. (1978). Vegetation of the Royal Botanic Gardens Annexe at Cranbourne, Victoria. *Proceedings of the Royal Society of Victoria* 70: 225-40.
- Walsh N. G. and Stajsic, V (2007). 'A Census of the Vascular Plants of Victoria - 8th edition'. Royal Botanic Gardens, Melbourne.

7 Acknowledgments

Valentino Stajsic (National Herbarium of Victoria) is gratefully acknowledged for records of grass species collected or observed at Pinkerton Forest and Bush's Paddock.

Kevin Rule, Eucalyptologist, is gratefully acknowledged for comments on the undescribed subspecies of *Eucalyptus baueriana* which occurs in Pinkerton Forest.

Appendix 1 Criteria used by Ecology Australia for assessment of conservation significance of flora values.

In the context of the present study the following areas apply to the scale of significance for indigenous plant species and biodiversity of a site:

Local:	Shire of Melton
Regional:	Victorian Volcanic Plain
State:	Victoria
National:	Australia

Significance of plant species

Species significance is generally an indication of rarity or population decline. The assessment of significance of plant species recorded during this study is determined according to the following criteria for each geographic scale:

- Local** All indigenous flora is considered significant at a local level because of the massive decline in native vegetation since European settlement, and the continued incremental loss of habitat and reductions in abundance due to development and habitat degradation.
- Regional** In the context of the relevant Victorian bioregion, plant species are considered to be of regional significance when the species has a recording rate of less than 1%, as determined by interrogation of the Flora Information System database. However, this approach is influenced by sampling bias in particular vegetation types, so species may be included or excluded from the regional significance category where common sense and knowledge of the regional flora indicates.
- State** A taxon is considered significant at a State level if it is:
- listed under the *Victoria Flora and Fauna Guarantee Act 1988*; or
 - considered to be rare, vulnerable, or endangered in Victoria by DSE (2003b), or Ross and Walsh (2003).
- National** A taxon is considered significant at a National level if it is:
- listed as Vulnerable, Endangered, Critically Endangered, or Presumed Extinct under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*; or
 - considered to be rare, vulnerable, or endangered in Australia by DSE (2005a) or Ross and Walsh (2003).

- endemic to Victoria and is considered to be rare, vulnerable, or endangered in Victoria by DSE (2003b), or Ross and Walsh (2003).

Significance of Vegetation Communities and Ecological Vegetation Classes (EVCs)

Significance of vegetation types has been determined in two ways in this report:

1. Significance of a remnant according to its condition and the status of the EVC within the Bioregion (the Net Gain approach to significance: explained further below)
2. Listing of a vegetation community as rare or threatened under the Victorian *Flora and Fauna Guarantee Act 1988* or the Federal *Environment Protection and Biodiversity Conservation Act 1999*.

Determination of significance according to Net Gain

Victoria is implementing a new approach to the assessment of remnant vegetation through the 'habitat hectare' system (a measure of size and condition), as set out in Victoria's Native Vegetation Management – A Framework for Action (DSE 2002b). Of particular relevance is Table 5 (Appendix 3) of that document which is largely summarised in Table A, below.

To assist in planning for biodiversity conservation, Victoria is divided into 27 'bioregions' - geographic units based on a common suite of biophysical characteristics (DSE 2002a). The Ecological Vegetation Classes occurring within each bioregion have been assessed, based on the degree of depletion / clearing that has occurred since European settlement and the area of extant vegetation secured in a conservation reserve, to determine their conservation status. Criteria for each conservation status are given in Table B.

The condition score (h) of a particular remnant is then combined with the bioregional conservation status of the relevant EVC to determine the conservation significance of the EVC at the site.

Table A. The relationship between EVC Conservation Status, Vegetation Condition, and Conservation Significance (Low – Very High).

Conservation Status*	Condition Score (h)									
	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
Endangered	HIGH			VERY HIGH**						
Vulnerable	MEDIUM		HIGH		VERY HIGH					
Rare	MEDIUM		HIGH			VERY HIGH				
Depleted	LOW		MEDIUM			HIGH				
Least Concern	LOW					MEDIUM				

* As determined by reference to relevant bioregional plan / EVC database

** Other attributes (such as population size of a threatened taxon) may over-ride condition score alone

Appendix 2 Additional plant species recorded at Bush's Paddock during spring survey, November 2007

	<i>Scientific Name</i>	Common Name	Family	Previously Recorded?
r	<i>Arthropodium minus</i>	Small Vanilla-lily	Antheriaceae	
	<i>Arthropodium</i> sp. 3	Plains Vanilla-lily	Antheriaceae	
	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass	Poaceae	✓
	<i>Austrodanthonia tenuior</i>	Purplish Wallaby-grass	Poaceae	
	<i>Cheilanthes austrotenuifolia</i>	Green Rock-fern	Adiantaceae	
	<i>Crassula tetramera</i>	Australian Stonecrop	Crassulaceae	PF
	<i>Enchylaena tomentosa</i> (shrubby form)	Ruby Saltbush	Chenopodiaceae	PF
	<i>Euchiton sphaericus</i>	Annual Cudweed	Asteraceae	✓
*	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	Asteraceae	✓
*	<i>Medicago minima</i>	Little Medic	Fabaceae	
	<i>Plantago varia</i>	Variable Plantain	Plantaginaceae	
*	<i>Romulea minutiflora</i>	Small-flower Onion-grass	Iridaceae	PF
*	<i>Solanum linneanum</i>	Apple of Sodom	Solanaceae	✓
*	<i>Solanum nigrum</i>	Black Nightshade	Solanaceae	✓
*	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	Fabaceae	
*	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	Fabaceae	✓
*	<i>Trifolium glomeratum</i>	Cluster Clover	Fabaceae	✓
	<i>Wahlenbergia luteola</i>	Bronze Bluebell	Campanulaceae	

r – rare in Victoria

PF – Pinkerton Forest

Appendix 3 Additional plant species recorded at Pinkerton Forest during spring survey, November 2007

	<i>Scientific Name</i>	<i>Common Name</i>	<i>Family</i>	<i>Previously Recorded?</i>
k	<i>Alternanthera</i> sp. 1 (Plains)	Plains Joyweed	Amaranthaceae	
*	<i>Arctotheca calendula</i>	Cape Weed	Asteraceae	BP
	<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass	Poaceae	BP
	<i>Austrodanthonia pilosa</i>	Velvet Wallaby-grass	Poaceae	BP
*	<i>Bromus hordaceus</i>	Soft Brome	Poaceae	BP
*	<i>Cirsium vulgare</i>	Spear Thistle	Asteraceae	BP
k	<i>Convolvulus angustissimus</i> subsp. <i>omnigracilis</i>	Slender Bindweed	Convolvulaceae	BP
	<i>Crassula tetramera</i>	Australian Stonecrop	Crassulaceae	
*	<i>Cynodon dactylon</i> var. <i>dactylon</i>	Couch	Poaceae	BP
	<i>Daucus glochidiatus</i>	Australian Carrot	Apiaceae	
	<i>Dianella admixta</i>	Black-anther Flax-lily	Phormiaceae	BP
*	<i>Epilobium ciliatum</i>	Glandular Willow-herb	Onagraceae	
	<i>Erodium crinitum</i>	Blue Heron's Bill	Geraniaceae	
*	<i>Erodium botrys</i>	Big Heron's Bill	Geraniaceae	
*	<i>Hypochoeris glabra</i>	Smooth Cat's-ear	Asteraceae	BP
*	<i>Hypochoeris radicata</i>	Cat's Ear	Asteraceae	BP
	<i>Juncus bufonius</i>	Toad Rush	Juncaceae	BP
*	<i>Lepidium africanum</i>	Common Peppercross	Brassicaceae	BP
	<i>Lomandra nana</i>	Dwarf Mat-rush	Xanthorrhoeaceae	BP
	<i>Lythrum hyssopifolia</i>	Small Loosestrife	Lythraceae	BP
*	<i>Malva parviflora</i>	Small-flower Mallow	Malvaceae	
	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	Poaceae	BP
	<i>Oxalis perennans</i>	Grassland Wood-sorrel	Oxalidaceae	BP
*	<i>Polygonum aviculare</i>	Prostrate Knot-weed	Polygonaceae	BP
	<i>Ptilotus spathulatus</i> f. <i>spathulatus</i>	Pussy Tails	Amaranthaceae	
*	<i>Rapistrum rugosum</i>	Giant Mustard	Brassicaceae	BP
	<i>Rumex brownii</i>	Slender Dock	Polygonaceae	BP
	<i>Rumex dumosus</i>	Wiry Dock	Polygonaceae	BP
*	<i>Sonchus oleraceus</i>	Common Sow-thistle	Asteraceae	BP
*	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	Fabaceae	BP
*	<i>Trifolium glomeratum</i>	Cluster Clover	Fabaceae	BP
*	<i>Trifolium striatum</i>	Knotted Clover	Fabaceae	

K – conservation status unresolved in Victoria (DSE)

BP – Bush's Paddock

Appendix 4 Waypoints recorded for significant species at Pinkerton Forest and Bush's Paddock, 13 November 2007

WP	Zone	Easting	Northing	Altitude	Quadrat	Significant Indigenous Species	Weed species	Label	Notes	East_agd	North_agd
1	55	288179	5817537	115 m	Spring 1			Spring 1	2 plants	288066	5817353
1	55	288179	5817537	115 m		<i>Alternanthera</i> sp. 1		<i>Alternanthera</i> sp. 1	2 plants	288066	5817353
2	55	288443	5817475	121 m		<i>Alternanthera</i> sp. 1		<i>Alternanthera</i> sp. 1	1 plant	288330	5817291
3	55	288507	5817314	125 m		<i>Alternanthera</i> sp. 1		<i>Alternanthera</i> sp. 1	1 plant	288394	5817130
4	55	288444	5817206	109 m		<i>Alternanthera</i> sp. 1		<i>Alternanthera</i> sp. 1	1 plant	288331	5817022
4	55	288444	5817206	109 m			<i>Marrubium vulgare</i>	<i>Marrubium vulgare</i>	1 plant	288331	5817022
5	55	288476	5817161	118 m		<i>Dianella admixta</i>		<i>Dianella admixta</i>		288363	5816977
6	55	288386	5817075	115 m	Spring 2			Spring 2		288273	5816891
7	55	288328	5817251	122 m		<i>Dianella admixta</i>		<i>Dianella admixta</i>		288215	5817067
8	55	288206	5817369	118 m		<i>Lomandra nana</i>		<i>Lomandra nana</i>	1 plant	288093	5817185
9	55	288103	5817546	117 m		<i>Erodium crinitum</i>			Indigenous, 17 plants, 1 elsewhere		
10	55	288444	5818002	137 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	3 plants	288331	5817818
11	55	288525	5818005	125 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	2 plants	288412	5817821
12	55	288558	5817994	128 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	12 plants	288445	5817810
13	55	288623	5817982	124 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	1 plant	288510	5817798

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14	55	288633	5818001	106 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	4 plants	288520	5817817
15	55	288660	5818006	113 m		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	3 plants	288547	5817822

WP – waypoint

Note: Datum GDA 94

Appendix 5 Plant species recorded at Bush's Paddock and Pinkerton Forest from previous surveys by Frood et al. (2003), Tim D'Ombrian (2001) and Val Stajsic (pers. comm. 2008) as well as the results of (Ecology Australia 2006, 2007 studies) and informal records kept by Pinkerton Landcare and Environment Group (PLEG).

FFG	EPBC	VROTS		<i>Scientific Name</i>	Common Name	Family Name	BUSH'S PADDOCK					PINKERTON FOREST			
							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
				<i>Acacia acinacea</i>	Gold-dust Wattle	Mimosaceae	x					x			
				<i>Acacia implexa</i>	Lightwood	Mimosaceae	x		x	x	x				
				<i>Acacia paradoxa</i>	Hedge Wattle	Mimosaceae			x	x	x				
				<i>Acacia pycnantha</i>	Golden Wattle	Mimosaceae	x					x			
				<i>Acaena echinata</i>	Sheep's Burr	Rosaceae			x	x					
				<i>Acaena sp.</i>	Sheep's Burr	Rosaceae			x		x				
			*	<i>Acetosella vulgaris</i>	Sheep Sorrel	Polygonaceae	x		x	x					
			*	<i>Aira caryophyllea</i>	Silvery Hair Grass	Poaceae			x	x					
			*	<i>Aira sp.</i>	Hair Grass	Poaceae	x								
				<i>Allocasuarina verticillata</i>	Drooping Sheoak	Casuarinaceae	x		x	x	x				
				<i>Alternanthera denticulata s.s.</i>	Lesser Joyweed	Amaranthaceae	x								
				<i>Alternanthera sp. 1</i>	Plains Joyweed	Amaranthaceae							x		
			*	<i>Amaranthus muricatus</i>	Rough-fruit Amaranth	Amaranthaceae	x								
				<i>Amphibromus nervosus</i>	Common Swamp Wallaby-grass	Poaceae			x						
			*	<i>Arctotheca calendula</i>	Cape Weed	Asteraceae	x		x						
				<i>Arthropodium minus</i>	Small Vanilla-lily	Antheriaceae		x							
				<i>Arthropodium strictum</i>	Chocolate-lily	Antheriaceae				x	x				
				<i>Arthropodium sp. 3</i>	Plains Vanilla-lily	Antheriaceae		x							
				<i>Asperula conferta</i>	Common Woodruff	Rubiaceae			x						

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FFG	EPBC	VROTS		Scientific Name	Common Name	Family Name	BUSH'S PADDOCK					PINKERTON FOREST			
							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Aster subulatus</i>	Aster-weed	Poaceae			x						
				<i>Atriplex semibaccata</i>	Berry Saltbush	Chenopodiaceae	x		x	x		x			
				<i>Austrodanthonia auriculata</i>	Lobed Wallaby-grass	Poaceae	x		x						
				<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass	Poaceae	x		x			x			
				<i>Austrodanthonia carphoides</i>	Short Wallaby-grass	Poaceae	x		x				x		
				<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass	Poaceae		x	x				x		
				<i>Austrodanthonia eriantha</i>	Hill Wallaby-grass	Poaceae			x						
				<i>Austrodanthonia fulva</i>	Copper-awned Wallaby-grass	Poaceae	x		x			x			
				<i>Austrodanthonia pilosa</i>	Velvet Wallaby-grass	Poaceae			x				x		
				<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	Stiped Wallaby-grass	Poaceae	x		x			x			
				<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass	Poaceae	x		x		x	x			x
				<i>Austrodanthonia</i> sp.	Wallaby Grass	Poaceae	x	x	x		x	x			
				<i>Austrodanthonia tenuior</i>	Purplish Wallaby-grass	Poaceae		x					X		
				<i>Austrostipa aristiglumis</i>	Plump Spear-grass	Poaceae		x	x						
				<i>Austrostipa bigeniculata</i>	Kneed Spear-grass	Poaceae	x					x			x
				<i>Austrostipa blackii</i>	Crested Spear-grass	Poaceae			x?				x		x
				<i>Austrostipa curticomis</i>	Short-crown Spear-grass	Poaceae		x	x				x		
				<i>Austrostipa densiflora</i>	Dense Spear-grass	Poaceae	x						x		

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FFG	EPBC	VROTS		Scientific Name	Common Name	Family Name	BUSH'S PADDOCK					PINKERTON FOREST			
							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
		r		<i>Austrostipa exilis</i>	Heath Spear-grass	Poaceae					x			x	x
				<i>Austrostipa flavescens</i>	Coast Spear-grass	Poaceae									x
				<i>Austrostipa gibbosa</i>	Spurred Spear-grass	Poaceae	x		x		x	x			
		r		<i>Austrostipa hemipogon</i>	Half-bearded Spear-grass	Poaceae	x					x			
				<i>Austrostipa mollis</i>	Supple Spear-grass	Poaceae	x		x						
				<i>Austrostipa oligostachya</i>	Fine-head Spear-grass	Poaceae	x								x
				<i>Austrostipa scabra</i>	Rough Spear-grass	Poaceae	x		x			x			
				<i>Austrostipa scabra</i> ssp. <i>scabra</i>	Rough Spear-grass	Poaceae		x					x		
				<i>Austrostipa semibarbata</i>	Fibrous Spear-grass	Poaceae	x		x						
				<i>Austrostipa setacea</i>	Corkscrew Spear-grass	Poaceae			x						
				<i>Austrostipa</i> sp.	Spear Grass	Poaceae	x		x		x	x			
			*	<i>Avena barbata</i>	Bearded Oat	Poaceae	x		x	x		x			
				<i>Bothriocloa macra</i>	Red-leg Grass	Poaceae			x?					x	
			*	<i>Brassica fruticulosa</i>	Twiggy Turnip	Brassicaceae	x								
			*	<i>Briza maxima</i>	Large Quaking-grass	Poaceae	x		x	x					
			*	<i>Briza minor</i>	Lesser Quaking-grass	Poaceae	x		x						
			*	<i>Bromus catharticus</i>	Prairie Grass	Poaceae	x								
			*	<i>Bromus diandrus</i>	Great Brome	Poaceae	x		x			x			
			*	<i>Bromus hordeaceus</i> subsp. <i>hordeaceus</i>	Soft Brome	Poaceae	x		x				x		
			*	<i>Bromus rubens</i>	Red Brome	Poaceae			x						
				<i>Bursaria spinosa</i> subsp. <i>spinosa</i>	Sweet Bursaria	Pittosporaceae	x		x	x		x			

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FFG	EPBC	VROTS		Scientific Name	Common Name	Family Name	BUSH'S PADDOCK					PINKERTON FOREST				
							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008	
				<i>Caesia calliantha</i>	Blue Grass-lily	Phormiaceae	x									
				<i>Calocephalus citreus</i>	Lemon Beauty-heads	Asteraceae	x		x	x	x					
				<i>Calotis scabiosifolia</i> var. <i>scabiosifolia</i>	Rough Burr-daisy	Asteraceae		x			x					
				<i>Carex inversa</i> s.l.	Knob Sedge	Cyperaceae	x		x			x				
				<i>Cassinia arcuata</i>	Drooping Cassinia	Asteraceae	x									
			*	<i>Centaurium tenuiflorum</i>	Slender Centaury	Gentianaceae	x									
			*	<i>Chamaecytisus palmensis</i>	Tree Lucerne	Fabaceae			x	x						
				<i>Chamaesyce drummondii</i>	Flat Spurge	Euphorbiaceae			x							
				<i>Cheilanthes austrotenuifolia</i>	Green Rock-fern	Adiantaceae		x								
				<i>Cheilanthes sieberi</i>	Narrow Rock-fern	Adiantaceae			x							
				<i>Chenopodium desertorum</i> subsp. <i>microphyllum</i>	Frosted Goosefoot	Chenopodiaceae						x				
			*	<i>Chenopodium murale</i>	Sowbane	Chenopodiaceae	x					x				
				<i>Chenopodium pumilio</i>	Clammy Goosefoot	Chenopodiaceae	x									
				<i>Chloris truncata</i>	Windmill Grass	Poaceae	x		x	x						
				<i>Chrysocephalum apiculatum</i> s.l.	Common Everlasting	Asteraceae			x	x	x					
			*	<i>Cirsium vulgare</i>	Spear Thistle	Asteraceae	x		x	x			X			
				<i>Clematis microphylla</i>	Small-leaved Clematis	Ranunculaceae	x		x	x	x	x				
		k		<i>Convolvulus angustissimus</i> subsp. <i>omnigracilis</i>	Slender Bindweed	Convolvulaceae	x		x	x	x		x			

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008	
			*	<i>Conyza sumatrensis</i>	Tall Fleabane	Asteraceae	x									
				<i>Crassula closiana</i>	Stalked Crassula	Crassulaceae	x									
				<i>Crassula helmsii</i>	Swamp Crassula	Crassulaceae	x									
				<i>Crassula peduncularis</i>	Purple Crassula	Crassulaceae							x			
				<i>Crassula sieberiana</i>	Sieber Crassula	Crassulaceae			x							
				<i>Crassula tetramera</i>	Australian Stonecrop	Crassulaceae		x				x				
			*	<i>Critesion murimum</i> subsp. <i>glaucum</i>	Blue Barley-grass	Poaceae			x							
				<i>Cucumis myriocarpus</i>	Paddy Melon	Cucurbitaceae			x	x						
			*	<i>Cynara cardunculus</i>	Spanish Artichoke	Asteraceae	x		x	x						
			*	<i>Cynodon dactylon</i> var. <i>dactylon</i>	Couch	Poaceae	x						x			
			*	<i>Cynosurus echinatus</i>	Rough Dog's-tail	Poaceae	x		x	x						
			*	<i>Cyperus eragrostis</i>	Drain Flat-sedge	Cyperaceae	x		x			x				
			*	<i>Dactylis glomerata</i>	Cocksfoot	Poaceae	x		x							
				<i>Daucus glochidiatus</i>	Australian Carrot	Apiaceae							x			
				<i>Dianella admixta</i>	Black-anther Flax-lily	Phormiaceae	x						x			
		v		<i>Dianella</i> sp. aff. <i>longifolia</i> (Benambra)	Arching Flax-lily	Phormiaceae	x		x	x	x	x				
				<i>Dichelachne crinita</i>	Long-hair Plume-grass	Poaceae	x				x					
				<i>Dichondra repens</i>	Kidney-weed	Convolvulaceae	x		x	x		x				
f	E	v		<i>Diuris</i> sp. aff. <i>chryseopsis</i> (Basalt Plains)	Small Golden Moths	Orchidaceae							x?			
				<i>Drosera peltata</i>	Pale Sundew	Droseraceae			x	x	x					
			*	<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass	Poaceae	x		x							

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Ehrharta longiflora</i>	Annual Veldt-grass	Poaceae	x		x			x			
				<i>Einadia nutans</i> subsp. <i>nutans</i>	Nodding Saltbush	Chenopodiaceae	x		x	x	x	x		x	
				<i>Eleocharis acuta</i>	Common Spike-sedge	Cyperaceae	x		x						
				<i>Eleocharis pusilla</i>	Small Spike-sedge	Cyperaceae			x						
				<i>Elymus scaber</i> var. <i>scaber</i>	Common Wheat-grass	Poaceae			x						
				<i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (prostrate form)	Ruby Saltbush	Chenopodiaceae	x					x			
				<i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (shrubby form)	Ruby Saltbush	Chenopodiaceae		x				x			
				<i>Epilobium billardierianum</i>	Robust Willow-herb	Onagraceae			x	x					
			*	<i>Epilobium ciliatum</i>	Glandular Willow-herb	Onagraceae							x		
				<i>Epilobium hirtigerum</i>	Hairy Willow-herb	Onagraceae	x		x			x			
				<i>Eremophila deserti</i>	Turkey Bush	Myoporaceae	x		x	x					
			*	<i>Erodium botrys</i>	Big Heron's-bill	Geraniaceae	x		x	x			x		
				<i>Erodium crinitum</i>	Heron's Bill	Geraniaceae							x		
				<i>Eryngium ovinum</i>	Blue Devil	Apiaceae	x		x	x	x				
				<i>Eucalyptus</i> aff. <i>baueriana</i> (Werribee River catchment)	Werribee Blue Box	Myrtaceae						x			
				<i>Eucalyptus camaldulensis</i>	River Red-gum	Myrtaceae	x		x	x	x	x			
			*	<i>Eucalyptus cladocalyx</i>	Sugar Gum	Myrtaceae	x								
				<i>Eucalyptus melliodora</i>	Yellow Box	Myrtaceae	x		x	x		x			

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
				<i>Eucalyptus microcarpa</i>	Grey Box	Myrtaceae	x		x	x	x	x		x	
				<i>Euchiton collinus</i>	Creeping Cudweed	Asteraceae			x	x					
				<i>Euchiton sphaericus</i>	Annual Cudweed	Asteraceae		X	x						
			*	<i>Galenia pubescens</i> var. <i>pubescens</i>	Galenia	Aizoaceae	x		x	x		x			
				<i>Galium migrans</i>	Wandering Bedstraw	Rubiaceae			x						
			*	<i>Gamochaeta purpurea</i> s.s.	Spiked Cudweed	Asteraceae	x		x						
				<i>Geranium retrorsum</i>	Grassland Cranesbill	Geraniaceae			x	x	x				
				<i>Geranium</i> sp.	Crane's Bill	Geraniaceae	x		x		x				
f	V	v		<i>Glycine tabascina</i>	Variable Glycine	Fabaceae						x	x		
			*	<i>Helminthotheca echioides</i>	Ox-tongue	Asteraceae	x		x						
			*	<i>Holcus lanatus</i>	Yorkshire Fog	Poaceae	x		x						
			*	<i>Hordeum glaucum</i>	Northern Barley-grass	Poaceae		X					X		
			*	<i>Hordeum murinum</i> s.l.	Barley-grass	Poaceae	x					x			
				<i>Hypericum gramineum</i>	Small St John's Wort	Clusiaceae			x	x					
			*	<i>Hypochoeris glabra</i>	Smooth Cat's Ear	Asteraceae		x	x				x		
			*	<i>Hypochoeris radicata</i>	Cat's Ear	Asteraceae	x		x				X		
				<i>Juncus bufonius</i>	Toad Rush	Juncaceae	x						x		
				<i>Juncus filicaulis</i>	Thread Rush	Juncaceae			x	x					
				<i>Juncus flavidus</i>	Gold Rush	Juncaceae	x		x	x		x			
				<i>Juncus radula</i>	Hoary Rush	Juncaceae			x						
				<i>Juncus subsecundus</i>	Finger Rush	Juncaceae	x		x		x	x			
				<i>Lachnagrostis filiformis</i> s.l.	Common Blown-grass	Poaceae	x		x						
			*	<i>Lactuca serriola</i>	Prickly Lettuce	Asteraceae	x								

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Leontodon taraxacoides</i> subsp. <i>taraxacoides</i>	Hairy Hawkbit	Asteraceae	x		x						
			*	<i>Lepidium africanum</i>	Common Peppergrass	Brassicaceae	x		x	x			x		
			*	<i>Lolium rigidum</i>	Wimmera Rye-grass	Poaceae	x		x	x		x			
				<i>Lomandra filiformis</i> subsp. <i>coriacea</i>	Wattle Mat-Rush	Xanthorrhoeaceae			x						
				<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	Wattle Mat-Rush	Xanthorrhoeaceae			x						
				<i>Lomandra filiformis</i> s.l.	Wattle Mat-rush	Xanthorrhoeaceae	x			x	x	x			
				<i>Lomandra micrantha</i> subsp. <i>micrantha</i>	Small-flower Mat-rush	Xanthorrhoeaceae						x			
				<i>Lomandra nana</i>	Dwarf Mat-rush	Xanthorrhoeaceae			x	x				X	
			*	<i>Lycium ferocissimum</i>	African Box-thorn	Solanaceae	x		x	x		x			x
				<i>Lythrum hyssopifolia</i>	Small Loosestrife	Lythraceae	x		x	x				X	
				<i>Maireana enchylaenoides</i>	Wingless Bluebush	Chenopodiaceae	x		x			x	x		
			*	<i>Malva parviflora</i>	Small-flower Mallow	Malvaceae								X	
			*	<i>Marrubium vulgare</i>	Horehound	Lamiaceae	x		x	x		x			
			*	<i>Medicago minima</i>	Little Medic	Fabaceae			x						
				<i>Melicytus dentatus</i> s.s.	Tree Violet	Violaceae	x		x	x	x	x			
				<i>Melicytus</i> sp. aff. <i>dentatus</i> (Volcanic Plain variant)	Tangled Shrub-violet	Violaceae	x		x			x			
			*	<i>Medicago polymorpha</i>	Burr Medic	Fabaceae			x						
				<i>Mentha satureoides</i>	Creeping mint	Lamiaceae	x					x			
				<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	Poaceae	x		x	x	x			x	

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Nassella neesiana</i>	Chilean Needle-grass	Poaceae	x		x	x					
			*	<i>Nassella trichotoma</i>	Serrated Tussock	Poaceae	x		x	x		x		x	
			*	<i>Opuntia ficus-indica</i>	Indian Fig	Cactaceae	x								
				<i>Oxalis exilis</i>	Shady Wood-sorrel	Oxalidaceae			x						
				<i>Oxalis perennans</i>	Grassland Wood-sorrel	Oxalidaceae	x		x	x	x		x		
				<i>Panicum decompositum</i>	Australian Millet	Poaceae			x?						
				<i>Panicum effusum</i>	Hairy Panic	Poaceae			x						
			*	<i>Paspalum dilatatum</i>	Paspalum	Poaceae	x								
			*	<i>Paspalum distichum</i>	Water Couch	Poaceae			x						
				<i>Pelargonium rodneyanum</i>	Magenta Stork's-bill	Geraniaceae			x		x				
			*	<i>Pentaschistis airoides</i> subsp. <i>airoides</i>	False Hair-grass	Poaceae	x		x						
				<i>Persicaria prostrata</i>	Creeping Knotweed	Polygonaceae			x						
			*	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	Poaceae	x								
			*	<i>Phalaris paradoxa</i>	Paradoxical Canary-grass	Poaceae			x						
			*	<i>Physalis viscosa</i>	Sticky Ground-cherry	Solanaceae	x		x	x				x	
			*	<i>Phytolacca octandra</i>	Red-ink Weed	Phytolaccaceae			x	x					
				<i>Pimelea curviflora</i>	Curved Rice-flower	Thymelaeaceae			x						
				<i>Pimelea glauca</i>	Smooth Rice-flower	Thymelaeaceae	x		x	x	x				
			*	<i>Plantago lanceolata</i>	Ribwort	Plantaginaceae	x		x						
				<i>Plantago varia</i>	Variable Plantain	Plantaginaceae		x							
			*	<i>Poa annua</i>	Annual Meadow-grass	Poaceae			x						

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
				<i>Poa morrissii</i>	Soft Tussock-grass	Poaceae			x						
			*	<i>Polycarpon tetraphyllum</i>	Four-leaved Allseed	Caryophyllaceae	x								
			*	<i>Polygonum aviculare</i>	Prostrate Knotweed	Polygonaceae	x						X		
			*	<i>Polypogon monspeliensis</i>	Annual Beard-grass	Poaceae	x								
				<i>Potamogeton cheesemani</i>	Red Pondweed	Potamogetonaceae	x								
				<i>Potamogeton ochreatus</i>	Blunt Pondweed	Potamogetonaceae	x								
				<i>Potamogeton pectinatus</i>	Fennel Pondweed	Potamogetonaceae	x								
				<i>Potamogeton tricarinatus</i>	Floating Pondweed	Potamogetonaceae			x	x					
			*	<i>Prunus cerasifera</i>	Cherry Plum	Rosaceae	x								
				<i>Pseudognaphalium luteoalbum</i>	Jersey Cudweed	Asteraceae	x		x	x	x				
				<i>Ptilotus macrocephalus</i>	Feather Heads	Amaranthaceae	x		x	x	x				
				<i>Ptilotus spathulatus forma spathulatus</i>	Pussy Tails	Amaranthaceae							X		
			*	<i>Rapistrum rugosum</i>	Giant Mustard	Brassicaceae	x						X		
				<i>Rhagodia candolleana</i> subsp. <i>candolleana</i>	Seaberry Saltbush	Chenopodiaceae						x			
		r		<i>Rhagodia parabolica</i>	Fragrant Saltbush	Chenopodiaceae	x					x			
			*	<i>Romulea minutiflora</i>	Small-flower Onion-grass	Iridaceae						x			
			*	<i>Romulea rosea</i> var. <i>australis</i>	Common Onion-grass	Iridaceae	x		x	x		x			
			*	<i>Rosa rubiginosa</i>	Sweet Briar	Rosaceae	x		x	x					

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							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Rubus fruticosus</i> spp. agg.	Bramble	Rosaceae	x						X		
				<i>Rumex brownii</i>	Slender Dock	Polygonaceae	x		x				x		
			*	<i>Rumex conglomeratus</i>	Clustered Dock	Polygonaceae	x								
			*	<i>Rumex crispus</i>	Curled Dock	Polygonaceae	x		x						
				<i>Rumex dumosus</i>	Wiry Dock	Polygonaceae	x		x	x	x		X		
				<i>Shoenus apogon</i>	Common Bog-sedge	Cyperaceae			x						
				<i>Senecio quadridentatus</i>	Cotton Fireweed	Asteraceae	x								
			*	<i>Silybum marianum</i>	Variegated Thistle	Asteraceae			x						
			*	<i>Solanum linneanum</i>	Apple of Sodom	Solanaceae		x	x	x					
			*	<i>Solanum nigrum</i>	Black Nightshade	Solanaceae		X	x	x					
			*	<i>Sonchus asper</i>	Rough Sow-thistle	Asteraceae	x		x						
			*	<i>Sonchus oleraceus</i>	Common Sow-thistle	Asteraceae	x		x	x			X		
				<i>Stackhousia</i> sp. 1	Plains Stackhousia	Stackhousiaceae	x		x	x	x				
				<i>Themeda triandra</i>	Kangaroo Grass	Poaceae	x		x	x	x			x	
			*	<i>Tribolium acutiflorum</i> s.l.	Desmazeria	Poaceae	x								
				<i>Tricoryne elatior</i>	Yellow Rush-lily	Phormiaceae	x		x		x				
			*	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>	Narrow-leaf Clover	Fabaceae		X							
			*	<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	Fabaceae		X	x				X		
			*	<i>Trifolium dubium</i>	Suckling Clover	Fabaceae			x	x					
				<i>Trifolium glomeratum</i>	Cluster Clover	Fabaceae		x	x				X		
			*	<i>Trifolium subterraneum</i>	Subterranean Clover	Fabaceae	x		x						
			*	<i>Trifolium striatum</i>	Knotted Clover	Fabaceae							x		
				<i>Typha orientalis</i>	Broad-leaf Cumbungi	Typhaceae	x								

Pinkerton Forest and Bush's Paddock Spring Flora Survey



FFG	EPBC	VROTS	*	<i>Scientific Name</i>	Common Name	Family Name	BUSH'S PADDOCK					PINKERTON FOREST			
							EA 2006	EA 2007	DF 2003	TDO 2001	PLE G	EA 2006	EA 2007	PLE G	VS 2008
			*	<i>Verbascum thapsus</i>	Great Mullein	Scrophulariaceae			x	x					
			*	<i>Vicia sativa</i> subsp. <i>sativa</i>	Common Vetch	Fabaceae	x								
			*	<i>Vulpia bromoides</i>	Squirrel-tail Fescue	Poaceae	x		x	x			x		
			*	<i>Vulpia myorus</i> forma <i>myorus</i>	Rat's-tail Fescue	Poaceae			x						
				<i>Wahlenbergia luteola</i>	Bronze Bluebell	Campanulaceae		x							
			*	<i>Xanthium spinosum</i>	Bathurst Burr	Asteraceae			x	x					
				<i>Xerochrysum viscosum</i>	Shiny Everlasting	Asteraceae					x				
				<i>Walwalleya proluta</i>	Rigid Panic	Poaceae	x								

Appendix 6 Plant Species List recorded in quadrats, Pinkerton Forest, 13 November 2007.
MONOCOTYLEDONS
Iridaceae

- *Romulea minutiflora* Small-flower Onion-grass
**Romulea rosea var. australis s.s.* Common Onion-grass

Poaceae

- Austrodanthonia caespitosa* Common Wallaby-grass
Austrodanthonia duttoniana Brown-back Wallaby-grass
Austrodanthonia pilosa Velvet Wallaby-grass
Austrodanthonia racemosa var. racemosa Slender Wallaby-grass
Austrodanthonia setacea Bristly Wallaby-grass
Austrodanthonia spp. Wallaby Grass
Austrostipa bigeniculata Kneed Spear-grass
Austrostipa scabra subsp. scabra Rough Spear-grass
Austrostipa spp. Spear Grass
**Avena barbata* Bearded Oat
**Ehrharta longiflora* Annual Veldt-grass
**Hordeum glaucum* Northern Barley-grass
**Lolium rigidum* Wimmera Rye-grass
**Nassella trichotoma* Serrated Tussock
**Vulpia bromoides* Squirrel-tail Fescue

DICOTYLEDONS
Aizoaceae

- *Galenia pubescens var. pubescens* Galenia

Amaranthaceae

- k Alternanthera sp. 1 (Plains)* Plains Joyweed
Ptilotus spathulatus f. spathulatus Pussy Tails

Apiaceae

- Daucus glochidiatus* Australian Carrot

Asteraceae

- *Arctotheca calendula* Cape Weed
**Sonchus oleraceus* Common Sow-thistle

Chenopodiaceae

- Atriplex semibaccata* Berry Saltbush
Einadia nutans subsp. nutans Nodding Saltbush
Enchylaena tomentosa var. tomentosa Ruby Saltbush
Maireana enchylaenoides Wingless Bluebush

Convolvulaceae

- Dichondra repens* Kidney-weed

Crassulaceae

- Crassula tetramera* Australian Stonecrop

Fabaceae

- *Trifolium glomeratum* Cluster Clover
**Trifolium striatum* Knotted Clover

Myrtaceae

- Eucalyptus melliodora* Yellow Box
Eucalyptus microcarpa Grey Box

Oxalidaceae

<i>Oxalis perennans</i>	Grassland Wood-sorrel
Polygonaceae	
<i>Rumex brownii</i>	Slender Dock
Solanaceae	
* <i>Lycium ferocissimum</i>	African Box-thorn

Data From: Flora Information System, DSE - 2007 - © Viridans Biological Databases

Appendix 7 Quadrat data recorded at Pinkerton Forest, 13 November 2007

(see Figure 1 for locations of quadrats)

Pinkerton Forest
E2713300

Recs 27 Date : 13 Nov 2007 Location : 144°35'43" 37°45'53" Altitude : 115 Collector : GWC, LAshby

+ 5096	k	<i>Alternanthera sp. 1 (Plains)</i>	Plains Joyweed
1 255	*	<i>Arctotheca calendula</i>	Cape Weed
1 332		<i>Atriplex semibaccata</i>	Berry Saltbush
2 961		<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
1 977		<i>Austrodanthonia racemosa var. racemosa</i>	Slender Wallaby-grass
1 980		<i>Austrodanthonia setacea</i>	Bristly Wallaby-grass
1 3266		<i>Austrostipa bigeniculata</i>	Kneed Spear-grass
1 4943		<i>Austrostipa scabra subsp. scabra</i>	Rough Spear-grass
1 9099		<i>Austrostipa spp.</i>	Spear Grass
1 340	*	<i>Avena barbata</i>	Bearded Oat
1 4337		<i>Crassula tetramera</i>	Australian Stonecrop
1 1036		<i>Dichondra repens</i>	Kidney-weed
2 1129	*	<i>Ehrharta longiflora</i>	Annual Veldt-grass
1 1133		<i>Einadia nutans subsp. nutans</i>	Nodding Saltbush
1 1156		<i>Enchylaena tomentosa var. tomentosa</i> (prostrate form)	Ruby Saltbush
1 1297		<i>Eucalyptus melliodora</i>	Yellow Box
2 1298		<i>Eucalyptus microcarpa</i>	Grey Box
1 2037	*	<i>Lolium rigidum</i>	Wimmera Rye-grass
+ 2078	*	<i>Lycium ferocissimum</i>	African Box-thorn
1 2101		<i>Maireana enchylaenoides</i>	Wingless Bluebush
1 2386		<i>Oxalis perennans</i>	Grassland Wood-sorrel
+ 2832		<i>Ptilotus spathulatus f. spathulatus</i>	Pussy Tails
1 2941	*	<i>Romulea minutiflora</i>	Small-flower Onion-grass
2 4113	*	<i>Romulea rosea var. australis s.s.</i>	Common Onion-grass
+ 3204	*	<i>Sonchus oleraceus</i>	Common Sow-thistle
1 3439	*	<i>Trifolium striatum</i>	Knotted Clover
1 3544	*	<i>Vulpia bromoides</i>	Squirrel-tail Fescue

E2713400

Recs 29 Date : 13 Nov 2007 Location : 144°35'51" 37°46'09" Altitude : 116 Collector : GWC, LAshby

1 255	*	<i>Arctotheca calendula</i>	Cape Weed
1 332		<i>Atriplex semibaccata</i>	Berry Saltbush
2 961		<i>Austrodanthonia caespitosa</i>	Common Wallaby-grass
1 963		<i>Austrodanthonia duttoniana</i>	Brown-back Wallaby-grass
1 975		<i>Austrodanthonia pilosa</i>	Velvet Wallaby-grass
1 977		<i>Austrodanthonia racemosa var. racemosa</i>	Slender Wallaby-grass
1 8361		<i>Austrodanthonia spp.</i>	Wallaby Grass
1 4943		<i>Austrostipa scabra subsp. scabra</i>	Rough Spear-grass
2 9099		<i>Austrostipa spp.</i>	Spear Grass
1 4337		<i>Crassula tetramera</i>	Australian Stonecrop
+ 989		<i>Daucus glochidiatus</i>	Australian Carrot
1 1036		<i>Dichondra repens</i>	Kidney-weed
1 1129	*	<i>Ehrharta longiflora</i>	Annual Veldt-grass
1 1133		<i>Einadia nutans subsp. nutans</i>	Nodding Saltbush

1	1156	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (prostrate form)	Ruby Saltbush
1	1156	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (prostrate form)	Ruby Saltbush
2	1298	<i>Eucalyptus microcarpa</i>	Grey Box
1	1399	* <i>Galenia pubescens</i> var. <i>pubescens</i>	Galenia
2	1700	* <i>Hordeum glaucum</i>	Northern Barley-grass
1	2037	* <i>Lolium rigidum</i>	Wimmera Rye-grass
1	2078	* <i>Lycium ferocissimum</i>	African Box-thorn
1	2101	<i>Maireana enchylaenoides</i>	Wingless Bluebush
1	2263	* <i>Nassella trichotoma</i>	Serrated Tussock
1	2386	<i>Oxalis perennans</i>	Grassland Wood-sorrel
2	2941	* <i>Romulea minutiflora</i>	Small-flower Onion-grass
1	2968	<i>Rumex brownii</i>	Slender Dock
+	3204	* <i>Sonchus oleraceus</i>	Common Sow-thistle
1	3429	* <i>Trifolium glomeratum</i>	Cluster Clover
1	3544	* <i>Vulpia bromoides</i>	Squirrel-tail Fescue